

Energy  
Saving  
Tips  
for  
Smart  
Energy  
Users



2004

What You Should Know



Energy Secretary Spencer Abraham encourages all Americans to practice smart energy use, as part of the U.S. Department of Energy's Smart Energy campaign. The purpose of the campaign is to educate businesses and consumers on ways they can use energy more efficiently and cut energy bills. He said that "Conserving energy saves consumers money today while also helping to ensure abundant energy supplies in the future."

Smart lighting strategies at home, work, and school can save money and help the environment. Modern building and interior design incorporates natural light and uses efficient lighting technologies. Increasing your lighting efficiency is one of the fastest ways to decrease your energy bill.

What the Future Holds

Solid state lighting (SSL) employs a semiconducting material that converts electricity directly into light. Researchers are continuing work to develop SSL with improved quality, brightness, and efficiency while reducing costs. SSL includes a variety of light-producing semiconductor devices, including LEDs and organic light emitting diodes (OLEDs). LEDs soon will be as bright as the incandescent lamps used in your home.

Learn more about SSL at [www.eere.energy.gov/buildings/components/lighting/](http://www.eere.energy.gov/buildings/components/lighting/).



What You Can Do — This Month's Smart Energy Tips

- Consider using Light-Emitting Diodes (LED) for decorative lighting and other specialized applications. Unlike ordinary incandescent bulbs with hot filaments, LEDs produce no heat, last a long time, and are very efficient. The 21,000 LED lights on the Vancouver Performing Arts Center, above, consume less than 1% of the energy required by incandescent bulbs. The energy saved in the 44 days scheduled for the display would be sufficient to light over 3 average homes for a year.
- For indoor and outdoor lighting, consider a combination of energy-efficient light bulbs, and motion and light sensors that only turn on at night when they sense movement.
- Replace 25% of your lights in high-use areas with fluorescent lights and save 50% on your lighting bill.
- Home remodeling projects provide an excellent opportunity to use efficient lighting. These improvements can be completed at minimal additional cost — and savings will continue year after year.

Modern compact fluorescent lights shine beautiful light and save at least \$25 in electricity costs over their lifetime. ▶



Photo Courtesy of Diallight

◀ Traffic signals with LED lamps have several advantages over typical traffic lights — they use 90% less energy and last several times longer. This adds up to municipal savings in energy bills and even greater savings in reduced labor and maintenance costs.

January 2004

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▲ Clerestory windows on the north side provide daylighting in the second floor offices of the Chesapeake Bay Foundation's Philip Merrill Environmental Center.



▲ Here comes the sun — using nature's light in building and interior design is smart energy use. Bright colors help reflect daylight into the interior of the home.



# What You Should Know

Windows are attractive features of our homes, providing views, daylighting, and ventilation. They also play a major role in determining how big our heating and air conditioning bills will be. Smart energy users can save money by prudent use of curtains, shades, and blinds. Even bigger savings are possible when adding or replacing ordinary windows with today's high-performance models. The benefits of using low-e coatings, insulating sashes, and inert gas-filled double panes depend on the local climate and orientation of your home.

# What the Future Holds

"Smart windows" could remain transparent while the sun is low in the sky, and gradually darken as the sun rises and begins to heat a building's interior. As the sun sets, the windows would gradually return to transparency. These windows could save consumers billions of dollars on heating, cooling, and lighting. Chromogenic windows respond dynamically to the environment and to factors such as temperature, light, or electrical input. A few smart windows are available commercially and others are being developed in research labs. For more information, visit [www.eere.energy.gov/buildings/components/envelope/fenestration.cfm/](http://www.eere.energy.gov/buildings/components/envelope/fenestration.cfm/).



# Windows

## What You Can Do — This Month's Smart Energy Tips

- During the cold months, keep your south-facing windows uncovered during the day to allow sunlight to enter your home, and covered at night to reduce heat loss. During the hot season, keep the window coverings closed during the day to block direct heat from the sun.
- If your home has single-pane windows, consider replacing them with efficient ones or adding storm windows. New double-pane windows with low-e glass will reduce energy use considerably by decreasing heat loss during cold months and heat gain during the warm season. For selection tips, visit: [www.eere.energy.gov/buildings/homes/buyingwindows.cfm/](http://www.eere.energy.gov/buildings/homes/buyingwindows.cfm/).
- A well-designed landscape with deciduous trees on the south and west sides of your house can reduce energy costs. The trees shade windows during the summer and, when leaves fall in autumn, warming sunshine enters into your home.

Replacing windows with ENERGY STAR® qualified models could save U.S. homeowners \$7 billion over the next 15 years. ▶



◀ Well thought out plantings can cut your summer and winter energy costs dramatically.

# February 2004

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◀ These smart windows developed at the Lawrence Berkeley National Laboratory's Advanced Window Test Facility demonstrate how electrochromic window coatings can darken or lighten as sunlight varies over the course of the day and during seasonal changes throughout the year.



U.S. Department of Energy  
Energy Efficiency and Renewable Energy  
[www.eere.energy.gov](http://www.eere.energy.gov)

What You Should Know

When building a new home, an energy efficient design can save 50% or more on the average annual energy bill, amounting to thousands of dollars in savings over the life of the home. When planned carefully, these features add little to the initial cost of a home.

The biggest energy needs in the home are heating and cooling (44%), appliances (42%), and water heating (14%).

What the Future Holds

Building homes with extremely low or even zero need for external energy sources will become common practice with innovations in construction techniques, building materials and envelopes, equipment, lighting, windows, passive solar, photovoltaics, advanced sensors and controls, advanced heating and cooling systems, along with on-site power generation.

For more information, visit [www.buildings.gov/](http://www.buildings.gov/).



What You Can Do — This Month's Smart Energy Tips

- ✱ Design and orient the home to take advantage of the light and heat from the sun. Known as passive solar design, this practice integrates a combination of building features to reduce or even eliminate the need for mechanical heating and cooling and daytime electric lighting.
- ✱ Use the maximum recommended R-value insulation in regions subject to hot or cold temperature extremes.
- ✱ Consider installing radiant heating panels or a radiant floor heating system – these technologies are very efficient and comfortable.
- ✱ Install high-performance windows.
- ✱ Save on water bills, and save the energy used to treat, pump, and distribute water through creative landscaping (50–70% of water use occurs outdoors).
- ✱ Refer to [www.eere.energy.gov/buildings/components/envelope](http://www.eere.energy.gov/buildings/components/envelope) for further information on tight construction, insulation, and sealing techniques.



▲ Xeriscaping outside a southwestern home shows that low-water, low-maintenance planting can be practical and attractive.

March 2004

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◀ Careful insulation and sealing of ductwork during installation helps ensure efficiency and effectiveness in heating and cooling.



# What You Should Know

Generating electricity can pollute the environment. Some power companies are now providing an optional service, called green pricing, that allows customers to pay a small premium in exchange for electricity generated from clean, renewable ("green") energy sources, such as geothermal, wind, solar, and biomass. The premium covers the increased costs of adding renewable energy to the power mix. About 40% of retail electricity customers in the United States can now purchase green power.

# What the Future Holds

In the future, consumers likely will have more opportunities to tap into green power as more states adopt policies requiring electricity suppliers to offer clean energy power options.

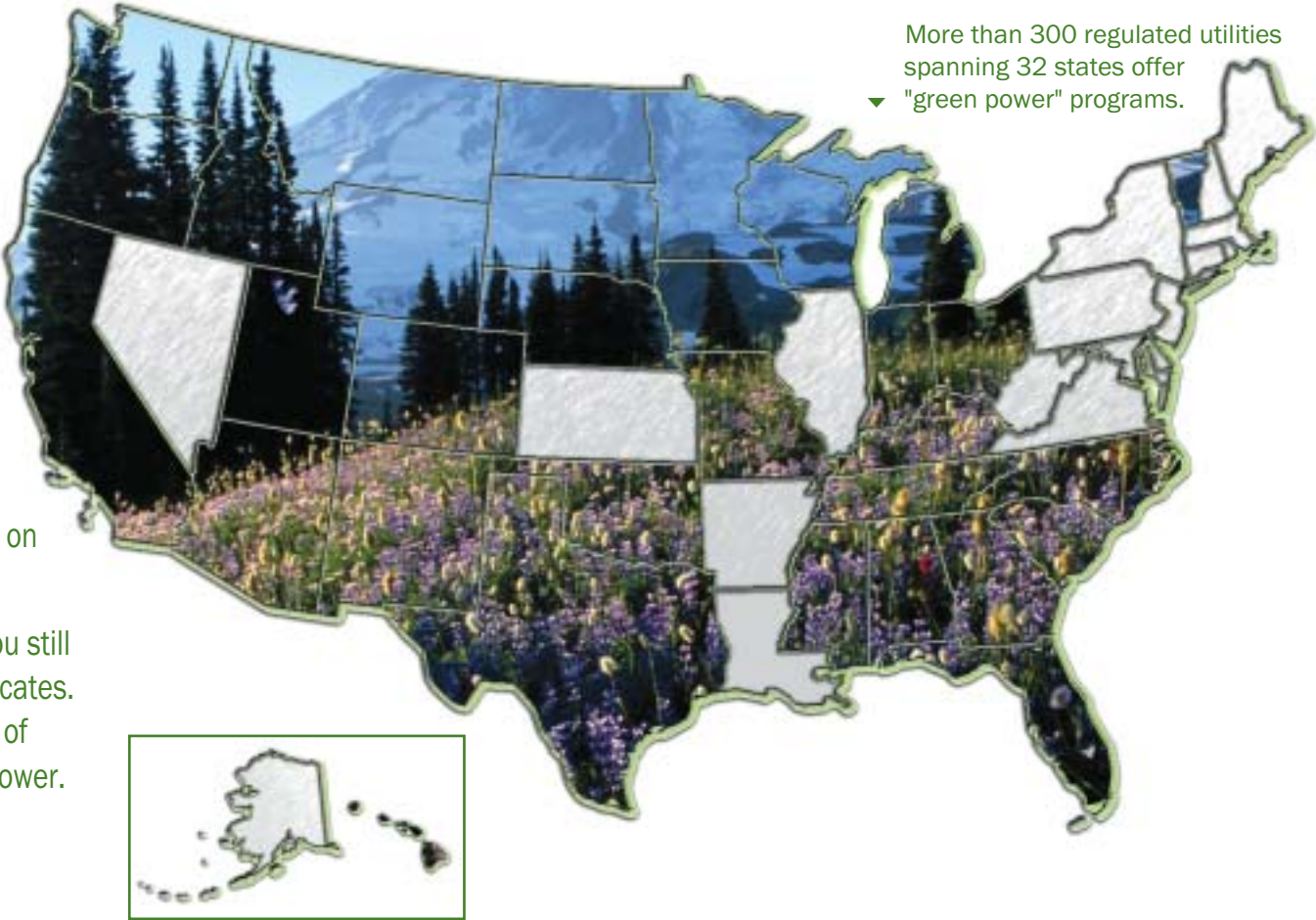
Greater reliance on renewable energy sources will shape a more sustainable and environmentally sound energy future.

For more information on green power pricing programs, visit the Green Power Network web site at [www.eere.energy.gov/greenpower/](http://www.eere.energy.gov/greenpower/).



## What You Can Do — This Month's Smart Energy Tips

- Consider purchasing green power through your local utility. Think of the slightly higher cost of green power as the premium you pay for the added value of clean energy.
- Even if your utility does not offer green power, your state may allow you to choose electricity produced by an independent "clean power generator." For more information, visit [www.eere.energy.gov/consumerinfo](http://www.eere.energy.gov/consumerinfo) and click on "Buy clean electricity."
- If green power is not available in your area, you still can do your part by buying green power certificates. These certificates guarantee that the amount of energy you use is offset elsewhere by green power.



### States With Green Power Utility Programs

Alabama, Arizona, California, Colorado, Florida, Georgia, Hawaii, Idaho, Indiana, Iowa, Kentucky, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Washington, Wisconsin, Wyoming

# April 2004

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What You Should Know

Each gallon of gas we save and every gallon of renewable fuel we use reduce the amount of foreign oil we import. Energy smart consumers can use less energy to meet their transportation needs and keep more money in their pockets!

When millions of us practice smart energy use, it can make a real difference. The United States is committed to reducing its dependence on foreign sources of petroleum.

What the Future Holds

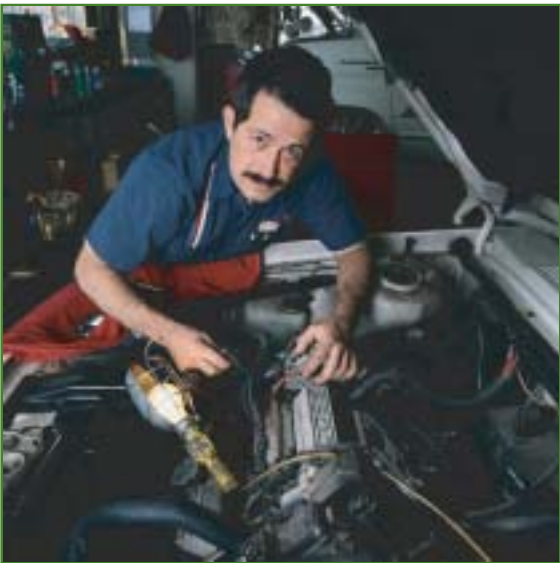
Partnerships like FreedomCAR and 21<sup>st</sup> Century Truck, and the creation of a domestic bio-industry are working to reduce use of imported petroleum. Your children may drive hydrogen-powered fuel cell cars that quietly hum along and produce nothing but water vapor as exhaust.

For more information about ongoing work to develop new vehicle, hydrogen, and bio-fuel technologies, visit [www.eere.energy.gov/vehiclesandfuels/](http://www.eere.energy.gov/vehiclesandfuels/) and [www.eere.energy.gov/hydrogenfuel/](http://www.eere.energy.gov/hydrogenfuel/) and [www.eere.energy.gov/RE/bio\\_fuels.html](http://www.eere.energy.gov/RE/bio_fuels.html)



What You Can Do — This Month's Smart Energy Tips

- ✱ Maintain proper tire pressure – re-inflating tires that are only 4 psi low can save you over 3 cents per gallon for each gallon you use.
- ✱ Drive gently and smoothly! Save over 8 cents per gallon.
- ✱ Reduce wind drag: minimize speeds over 60 mph and remove rooftop storage equipment when not in use (save 10 cents per gallon by reducing speed 5 mph).
- ✱ Buy a fuel-efficient car (trade your 15 mpg guzzler for a 30 mpg miser and save \$575/year in gasoline). Better yet, buy a gasoline/electric hybrid or diesel vehicle and get 40–50 mpg (save \$1,000 or more). For more information, visit [www.fueleconomy.gov/](http://www.fueleconomy.gov/).
- ✱ Buy renewable fuels: Ethanol is a renewable clean-burning gasoline additive, now made mostly from corn. Biodiesel is a renewable fuel made from vegetable oils and can be blended with regular diesel.



▲ Maintain your cars: Have your mechanic look over your vehicles to make sure they are running efficiently. This can save up to 6 cents per gallon.



▲ Carpool, use public transportation, and combine trips when possible.



Leave your car at home more often — walk, run, or bike, instead. ►

May 2004

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◀ In his State of the Union address, the President set a national goal that the first car of a child born today could be powered by hydrogen – a clean burning fuel that can be made from renewable resources.

The DOE Biomass program is working to develop less costly ways to make ethanol and biodiesel. A major thrust for ethanol is to make it from agricultural wastes like corn stover (leaves, stalks). ►



What You Should Know

Summertime brings seasonal opportunities to be smart energy users at home and save money at the same time. What's more, when millions of us use energy wisely, we do not have to build as many power plants, so there can be less pollution. The result can be cleaner, healthier air.

What the Future Holds

Your summertime energy costs will be reduced by better integrating all building components and systems, including advanced technologies such as solid state lighting; high-performance windows; heating and cooling systems with reduced operation, maintenance, and energy costs; and new insulation and building materials.

For more information, visit [www.energysavers.gov/](http://www.energysavers.gov/).



What You Can Do — This Month's Smart Energy Tips

- ✱ Prior to leaving the house unoccupied for several hours, turn the thermostat up several degrees if your air conditioner is running.
- ✱ Avoid things that can make your air conditioning system work harder than necessary, such as direct sunlight on your thermostat or a hot table lamp directly below it.
- ✱ Turn down the thermostat on your water heater and save! The cooler you can keep it, the more money you can save.
- ✱ Check caulking around windows and doors. Any cracks can allow cool air out and warm air in.
- ✱ Keep plants at least 2 inches away from the sides of your outdoor air conditioner unit and don't block the air flow from the top.



▲ When air conditioning is on, keep windows closed and minimize opening doors.



On hot days, cook outside on a gas grill or use your microwave. Using your regular oven adds to your air conditioning burden. ►

June 2004

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▼ Close blinds to keep sunlight from entering the house.



▲ Save energy by drying clothes out on the line.



# What You Should Know

The sun is the ultimate source of almost all of our energy. With the proper technologies, you can put the sun to work for you directly. Solar power systems have become highly reliable and can be affordable, if you consider the energy savings over the life of the system.

If you are planning an addition or remodeling project, this may be a great time to consider including solar technologies.

# What the Future Holds

As solar technologies continue to drop in price, they will become attractive in additional markets. You can expect to see photovoltaics and other solar products gradually gaining wider acceptance, particularly in areas that receive a lot of sun, such as the Southwest, and in less sunny areas where conventional energy is relatively expensive, such as New York.

For more information, visit [www.eere.energy.gov/solar.html](http://www.eere.energy.gov/solar.html).



◀ This home in Lakewood, Colorado, receives the majority of its heating from the sun using passive solar and climate appropriate design.

Solar water heaters can provide natural energy for hot showers and clean dishes. ▶



## What You Can Do — This Month's Smart Energy Tips

### Photovoltaics

- ☀ Homes can be powered completely or in part by photovoltaic (solar-electric or PV) systems. Some states even provide subsidies for PV systems, and many utilities also allow net metering permitting the owner to sell excess power back to the utility. For more information, visit <http://dsireusa.org/>.
- ☀ Install low-voltage solar-powered lighting along outside walkways, gardens, and drives. The solar cells charge a battery during the day, which then powers the lights each evening.

- ☀ Building-integrated photovoltaic materials produce electricity while also serving as construction materials. They can replace traditional building components such as curtain walls, skylights, roof tiles and shingles, and windows.

### Solar Water Heating

- ☀ If you have an electric water heater and your property has an unshaded south-facing location, consider a solar water heater. Look for systems certified by the Solar Rating and Certification Corporation (SRCC) or the Florida Solar Energy Center (FSEC). Find more information on these certifications at [www.solar-rating.org](http://www.solar-rating.org) and [www.fsec.ucf.edu/](http://www.fsec.ucf.edu/).

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◀ This private residence in Portland, Oregon, uses solar thermal collectors to heat its backyard pool.



U.S. Department of Energy  
**Energy Efficiency and Renewable Energy**  
[www.eere.energy.gov](http://www.eere.energy.gov)

# What You Should Know

Power outages inconvenience consumers, interrupt businesses, and threaten public health and safety. Although most outages are local, some events can affect entire cities — and even whole regions.

Usually outages happen during storms, but they can also occur during the summer when electricity use is high and demand can exceed available power supply. Informed consumers can make a difference — you can help reduce the likelihood of outages and better cope with outages when they do occur.

# What the Future Holds

Efforts to modernize the Nation's electricity delivery system are underway. Power lines are being placed underground to reduce exposure to threatening weather. Innovative systems are being used to identify problems with the electricity grid. Small-scale power generators are being developed for neighborhoods, businesses, and factories to provide power during outages, and during other times as well. The Distributed Energy Program of the U.S. Department of Energy is working to develop these devices, modernize the grid, and reduce the effects of costly power outages. For more information visit [www.eere.energy.gov/der/](http://www.eere.energy.gov/der/).



## What You Can Do — This Month's Smart Energy Tips

### Be Prepared

- ✱ Replace emergency preparedness batteries regularly – it is a good habit to replace batteries in smoke detectors every time you change clocks for daylight savings time. Consider using hand-cranked flashlights and radios – they never need batteries!
- ✱ Extra blankets, food, water, and other items are important to have on hand. See the Federal Emergency Management Agency's web site for a list of emergency supplies: [www.fema.gov/library/diskit.shtm/](http://www.fema.gov/library/diskit.shtm/).
- ✱ Help avoid damage to electronic equipment like computers and TVs by using power strips with surge protectors.

### Safety

- ✱ Never use a gas or charcoal grill indoors – they are fire hazards and emit deadly carbon monoxide fumes.
- ✱ Do not use your stove or oven to heat a home – it is a dangerous fire hazard.

### Use Energy Wisely

- ✱ You can do your part to reduce strain on power grids by using energy-efficient lighting, heating, and other equipment, and by getting in the habit of using energy wisely throughout the year.



▲ Never use generators indoors or even outside near a window.

# August 2004

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◀ Keep flashlights located in strategic places throughout the house. Make sure you have a battery-powered radio available so you can get the latest information.

During a power outage, avoid opening your refrigerator and freezer as much as possible. Food will stay below 32°F in a fully loaded freezer for 36 to 48 hours, even in summer, if the door stays closed. A half-full freezer generally will keep food frozen for 24 hours. ▶



What You Should Know

Heating and cooling technologies use more energy (and therefore, more money) than any other system in your home or small business. In fact, 44% of the typical home energy bill goes for heating and cooling.

You can help cut your energy bills and help the environment by using more energy-efficient heating and cooling products, or by using products that are fueled by clean, renewable energy sources such as geothermal heat pumps and solar water heaters.

What the Future Holds

Future homes will integrate a variety of energy resources and heating and cooling methods. Designers will consider the building envelope, building materials, available energy resources (including natural, renewable and conventional sources), health issues, and new controls to maximize comfort and minimize energy consumption, cost, and environmental impacts.

For more information, visit [www.eere.energy.gov/buildings/components/hvac/](http://www.eere.energy.gov/buildings/components/hvac/).



What You Can Do — This Month's Smart Energy Tips

- ✱ Seal and insulate all air ducts, particularly in areas where the ducts pass through unconditioned spaces.
- ✱ Close vents and doors in unoccupied rooms or areas of the house to save energy and reduce heating and cooling costs.
- ✱ Turn bathroom, kitchen, and other ventilation fans off as soon as they have done the job. In just one hour, these fans can remove a houseful of warmed or cooled air.
- ✱ Keep your fireplace damper closed unless a fire is burning. An open damper is like an open, 48-inch window – it allows warm air to go right up the chimney.
- ✱ Check to see if your water heater has an insulating blanket. An insulating blanket can pay for itself in one year or less.
- ✱ Use draperies and shades strategically to let warmth in when you need it, and keep the hot sun out when you are cooling your house.
- ✱ Replace your ordinary thermostats with programmable ones. You can save money on your heating and cooling by allowing the programmable thermostat to automatically change the temperature when you are away.



◀ Fireplaces can be very energy inefficient; use glass doors and blowers to circulate air into the room.

Is a geothermal heat pump right for your home? They use about 25% of the energy consumed by a conventional furnace and about 50% of the energy of a conventional heat pump. ▶



September 2004

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◀ Clean warm air registers, baseboard heaters, and radiators as needed.



▲ When buying new equipment, be sure it is rated for high energy efficiency. Look for high Annual Fuel Utilization Efficiency (AFUE) and Seasonal Energy Efficiency Ratio (SEER) ratings. National minimums are 78% AFUE and 12 SEER.



# What You Should Know

Appliances have two costs – what you pay to purchase them and what you pay for the energy and water they use over their lifetime. Energy efficient appliances at home can save you money on energy bills while helping the environment.

Schools and businesses can save too by using energy-efficient lighting, computers, and other equipment.

# What the Future Holds

Advances in appliance technology hold promise for even greater energy savings. An advanced refrigerator under development uses one half the energy of the most efficient commercial models currently available. Front-loading washing machines offer 60% energy savings and 40% water savings. Residential heat pump water heaters under development can attain much higher efficiencies than conventional electric water heaters. For more information about ENERGY STAR qualified products, visit [www.energystar.gov/](http://www.energystar.gov/).



## What You Can Do – This Month's Smart Energy Tips

- \* "Fill 'er up" in dish and clothes washers – washers are most efficient when operated with full loads.
- \* Wash clothes in cold water when you can. Heating water uses a lot of energy.
- \* Use your dishwasher's air-dry option whenever you can. Avoid using the heat-dry, rinse-hold, and pre-rinse features when possible.
- \* ENERGY STAR qualified refrigerators use half the energy that a 10-year old model does, keep food cold, and have all the features you need.
- \* Use energy-saving settings on refrigerators, washing machines, and clothes dryers.
- \* Check out the "Energy Savers" Web site for smart tips on how to shop for appliances and other items for your home: [www.energysavers.gov/](http://www.energysavers.gov/).



◀ Replace a 10-year-old air conditioner with a new ENERGY STAR qualified model and reduce your cooling costs by 20%.



▶ Modern washing machines use less water to get clothes just as clean, and spin faster, squeezing more water out and reducing drying time.

# October 2004

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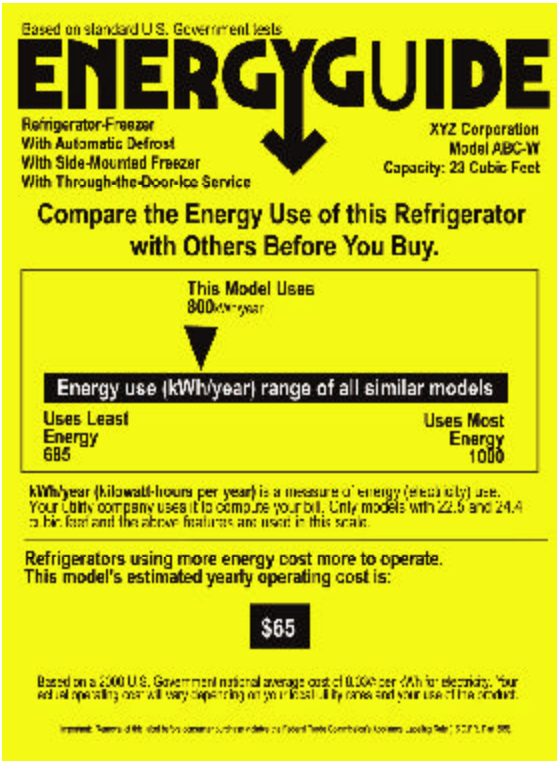


◀ ENERGY STAR qualified appliances use 10% to 50% less energy and water than standard models. You reap the savings, and help the environment day after day!

The Energy Guide label tells you how energy consumption compares among similar appliance models. ▶



U.S. Department of Energy  
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What You Should Know

Lots of energy is used to heat, light, and cool buildings. Using energy wisely at work, recycling, and adopting energy-efficient manufacturing processes improve productivity and increase profits.

ENERGY STAR qualified buildings use 40% less energy than average, without compromising comfort or services. In 2002, these buildings saved \$130 million on energy bills compared to average buildings.

What the Future Holds

Future offices will have substantially better energy, economic, and environmental performance than today's standard practice. Look for new whole-building design, including energy efficiency and solar energy technologies to boost savings and improve occupant comfort.

For more information, visit [www.eere.energy.gov/buildings/highperformance/](http://www.eere.energy.gov/buildings/highperformance/).



What You Can Do — This Month's Smart Energy Tips

- ✱ Turn off equipment and lights when you aren't using them.
- ✱ Replace high-wattage lights with compact fluorescents or lower-wattage lights.
- ✱ Reduce exterior lighting. Use photo cells or set time clocks so exterior lights are off during the day.
- ✱ In the heating season, turn the thermostat down when you leave (if cooling, set temperature higher), or install programmable thermostats.
- ✱ Use a ceramic coffee mug. It will conserve the energy it takes to manufacture hundreds of paper cups.
- ✱ Purchase recycled paper and other products for office use. Recycling printer cartridges saves plastics and the energy used in manufacturing.
- ✱ Don't miss the benefits of energy efficiency at your industrial plant. DOE's Industrial Technologies Program can assist in implementing energy-saving projects, dramatically reducing energy consumption – and saving millions of dollars. Visit the industrial energy savers web site to learn about 20 ways to save energy now for quick and easy cost savings: [www.eere.energy.gov/consumerinfo/industry/](http://www.eere.energy.gov/consumerinfo/industry/).



▲ Recycling two aluminum cans saves the amount of energy it takes to power a PC for one work day.

An energy efficient industrial facility can realize savings of up to 25% in process heating systems, up to 20% in steam systems, and as much as 18% in motor systems. ▶



November 2004

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4	5	6
7	8	9	10	11 Veterans Day	12	13
14	15	16	17	18	19	20
21	22	23	24	25 Thanksgiving	26	27
28	29	30			<div>October<div><div>SMTWTFS</div><div>345678910111213141516171819202122232425262728293031</div></div></div> <div>December<div><div>SMTWTFS</div><div>345678910111213141516171819202122232425262728293031</div></div></div>	



◀ The National Park Service has worked with the National Renewable Energy Laboratory to create a sustainable building that serves as a visitors center for the Zion National Park's current 2.5 million annual visitors. The Zion Visitor Center is designed to use 70% less energy than a typical building, and did not cost more to build.



◀ Purchase ENERGY STAR qualified products, which are the most efficient in their use of energy.



What You Should Know

Wintertime brings seasonal opportunities to be smart energy users at home, and save money at the same time. What's more, when millions of us use energy wisely, we help ensure abundant energy supplies in the future.

What the Future Holds

Time for a New Year's Resolution! Make a plan with specific things you'll do to be a smart energy user in 2005. Make sure to include at least one action for winter, spring, summer, and fall.

For more information on how to save energy at home, visit [www.energysavers.gov/](http://www.energysavers.gov/).



What You Can Do — This Month's Smart Energy Tips

- Make sure your heating equipment is properly maintained. Furnace filters should be replaced regularly — equipment works less hard to push air through clean filters.
- Close your fireplace damper after the fire is completely out — don't send money up the flue!
- Consider replacing your old heating system with a high-efficiency ENERGY STAR qualified system.
- Check the insulation in your attic and walls, and consider adding more to make your home more comfortable. Insulation can be added to virtually any home and is estimated to save 20% on heating and cooling bills. Read more about insulation and other weatherization strategies at [www.eere.energy.gov/weatherization/wx\\_inforesource.html/](http://www.eere.energy.gov/weatherization/wx_inforesource.html/).
- Seal up air leaks in your house. The worst culprits are usually not windows and doors, but utility cut-throughs for pipes, gaps around chimneys, recessed lights in insulated ceilings, and unfinished spaces behind cupboards and closets.

Holiday lights using light-emitting diodes (LEDs) use one-tenth the energy of these typical mini lights and are cooler, which reduces fire risk. ▶



◀ After a big snow, heat pump owners should make sure that snow is cleared from their outdoor compressor unit.



December 2004

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday																																																																																											
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◀ On cold days, use your stove and oven. Cooking does double duty by also warming your kitchen, thus reducing the load on your furnace.



◀ Now is the time to plan for smart energy use in 2005.



# Additional Resources

The energy saving tips in this calendar — tips that will save you money and are good for the environment — may encourage you to learn even more. The resources listed below provide valuable information for consumers on energy savings in many areas where the U.S. Department of Energy (DOE) is conducting research and development in partnership with organizations to promote energy efficiency and renewable energy.

Be sure to check [www.energysavers.gov](http://www.energysavers.gov) for extensive consumer information. You also can take an animated cybertour of energy saving strategies in different types of homes at [www.eere.energy.gov/consumerinfo/energy\\_savers/virtualhome/](http://www.eere.energy.gov/consumerinfo/energy_savers/virtualhome/).

## U.S. DOE Regional Offices

The six DOE regional offices (RO) promote energy efficiency and renewable energy programs through partnerships with state and local governments.

The **Atlanta RO** serves AL, AR, FL, GA, KY, MS, NC, Puerto Rico, SC, TN, and the U.S. Virgin Islands ([www.eere.energy.gov/aro](http://www.eere.energy.gov/aro)).

The **Boston RO** serves CT, MA, ME, NH, NY, RI, and VT ([www.eere.energy.gov/bro](http://www.eere.energy.gov/bro)).

The **Chicago RO** serves IA, IL, IN, MI, MN, MO, OH, and WI ([www.eere.energy.gov/cro](http://www.eere.energy.gov/cro)).

The **Denver RO** serves CO, KS, LA, MT, NE, NM, ND, OK, SD, TX, UT, and WY ([www.eere.energy.gov/dro](http://www.eere.energy.gov/dro)).

The **Philadelphia RO** serves DC, DE, MD, NJ, PA, VA, and WV ([www.eere.energy.gov/pro](http://www.eere.energy.gov/pro)).

The **Seattle RO** serves AK, Am. Samoa, AZ, CA, Guam, HI, ID, NV, N. Marianas, OR, and WA ([www.eere.energy.gov/sro](http://www.eere.energy.gov/sro)).

## Appliances

- The American Council for an Energy-Efficient Economy compiles an annual list of the most energy-efficient appliances, including refrigerators, clothes washers, and dishwashers. [www.aceee.org/consumerguide/mostenef.htm](http://www.aceee.org/consumerguide/mostenef.htm)
- Find out more about energy-efficient appliances at [www.eere.energy.gov/consumerinfo/saveenergy/save\\_appliances.html/](http://www.eere.energy.gov/consumerinfo/saveenergy/save_appliances.html/).
- Visit the DOE's Buildings Technologies Program at [www.eere.energy.gov/buildings/index.cfm/](http://www.eere.energy.gov/buildings/index.cfm/).
- Call the Energy Efficiency and Renewable Energy Clearinghouse at 1-800-363-3732.

## Lighting

The following sites provide more information on lighting:

- Energy Savers Booklet: Lighting Tips at [www.eere.energy.gov/consumerinfo/energy\\_savers/lighting.html/](http://www.eere.energy.gov/consumerinfo/energy_savers/lighting.html/).

## New Home Construction

To find out more about ways you can build smart energy use into new homes, visit [www.eere.energy.gov/buildings/homes](http://www.eere.energy.gov/buildings/homes) or contact the organizations listed below.

- National Association of Home Builders – [www.nahb.net/](http://www.nahb.net/).
- Sustainable Buildings Industry Council – [www.sbicouncil.org/](http://www.sbicouncil.org/).

## Energy at Work

- For information on efficient operation and maintenance of buildings, visit [www.eere.energy.gov/buildings/operate/](http://www.eere.energy.gov/buildings/operate/).
- [www.olt.doe.gov/bestpractices/](http://www.olt.doe.gov/bestpractices/).
- [www.eere.energy.gov/consumerinfo/tips/business.html/](http://www.eere.energy.gov/consumerinfo/tips/business.html/).
- [www.eere.energy.gov/consumerinfo/tips/commercial\\_institutional.html/](http://www.eere.energy.gov/consumerinfo/tips/commercial_institutional.html/).

## Green Power

- For more information on purchasing green power, see: <http://www.eere.energy.gov/consumerinfo/buycleanelec.html>
- A list of organizations selling green energy certificates can be found on the Green Marketing Activities page of the U.S. Department of Energy's Green Power Network at [www.eere.energy.gov/greenpower/certif\\_summ.shtml/](http://www.eere.energy.gov/greenpower/certif_summ.shtml/).

## Power Outages

For more information about how to be prepared for and react to a power outage, visit [www.powerprotection.org/blackout/](http://www.powerprotection.org/blackout/).

## Solar Energy

Information on a number of solar technologies is available at the DOE Energy Savers site:

- Photovoltaics– [www.eere.energy.gov/consumerinfo/makeelectricity/eval\\_pv.html/](http://www.eere.energy.gov/consumerinfo/makeelectricity/eval_pv.html/).
- Solar pool heating– [www.eere.energy.gov/consumerinfo/heatcool/hc\\_pool\\_heating.html/](http://www.eere.energy.gov/consumerinfo/heatcool/hc_pool_heating.html/).
- Solar hot water heating– [www.eere.energy.gov/consumerinfo/heatcool/hc\\_water\\_building.html/](http://www.eere.energy.gov/consumerinfo/heatcool/hc_water_building.html/).
- National Solar Industries Association – [www.seia.org/](http://www.seia.org/).

## Heating & Cooling

For more information on energy efficient and renewable energy technologies available for heating and cooling, see the Department of Energy's Energy Savers Web site at: [www.eere.energy.gov/consumerinfo/heatcool/hc\\_space\\_hc.html/](http://www.eere.energy.gov/consumerinfo/heatcool/hc_space_hc.html/).

## Incentives and Rebates

- Are you wondering what incentives for energy efficiency might exist in your area? Well, stop wondering and visit the new database created by the National Energy Affordability and Accessibility Project. The database lists such incentives as energy-efficiency audits, rebates, and low-interest loans. See the NEAPP Residential Energy Efficiency Database at: <http://neaap.ncat.org/db/>. The Database of State Incentives for Renewable Energy is also a comprehensive source of information on state, local, utility, and selected federal incentives that promote renewable energy.
- [www.energytaxcredits.org](http://www.energytaxcredits.org) has been reserved by a coalition of organizations as a central Web site to help people understand the tax credits contained in energy legislation.

## Transportation

- For Information on incentives, vehicle prices, refueling station locations, and more for consumers and fleet managers see the Vehicle's Buyers Guide at [www.cities.doe.gov/vbg/](http://www.cities.doe.gov/vbg/).
- Compare gas mileage, greenhouse gas emissions, air pollution ratings, and safety information for new and used cars and trucks at [www.fueleconomy.gov/](http://www.fueleconomy.gov/).
- Links to numerous transportation-related organizations and resources, arranged by topic and by type of product or organization can be found at [www.eere.energy.gov/EE/transportation.html/](http://www.eere.energy.gov/EE/transportation.html/).
- The following Web site lists organizations and publications that provide information on alternative vehicle fuels (natural gas, methanol, and propane) and their use: [www.eere.energy.gov/consumerinfo/factsheets/ta7.html/](http://www.eere.energy.gov/consumerinfo/factsheets/ta7.html/).

## Windows

- Find out more about energy-efficient windows at [www.eere.energy.gov/consumerinfo/saveenergy/save\\_windows.html/](http://www.eere.energy.gov/consumerinfo/saveenergy/save_windows.html/).
- For information on benefits of energy-efficient windows, descriptions of how they work, and recommendations for their selection and use, visit [www.efficientwindows.org/](http://www.efficientwindows.org/).

